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|-------------------------------|------------------------|---------------------|--|
| Notice of Allowability | Application No. | Applicant(s) | |
| | 09/696,410 | HORVAT ET AL. | |
| | Examiner | Art Unit | |
| | Eva Yi Zheng | 2634 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 1/5/2005.
2. ☒ The allowed claim(s) is/are 7,9,14 and 16-19.
3. ☒ The drawings filed on 25 October 2000 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413), Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Poh Chua on Feb. 4, 2005.

The application has been amended as follows:

- 1) Cancel claim 2.
- 2) Regarding claim 7,
 - a) on line 8 and 9, delete word: "demodulated".
 - b) on line 12, change word: "the" in front of "squared up" to – a --.
 - c) on line 13, add: -- ; and applying the data slicer output to a matched filter to reduce the likelihood of errors in the demodulated signal – after "demodulated signal".
- 3) Cancel claim 8.
- 4) Regarding claim 9, on line 1, change "claim 8" to -- claim 7 --.
- 5) Regarding claim 14,
 - a) on line 10, add word: -- by – after phase: "Q signal".
 - b) on line 11, change: "the demodulated signal" to – a demodulated signal --.

- c) on line 16, add: -- ; and applying the data slicer output to a matched filter to reduce the likelihood of errors in the demodulated signal – after “output signal”.
- 6) Cancel claim 15.
- 7) Regarding claim 16, on line 1, change “claim 15” to -- claim 14 --.
- 8) Regarding claim 17, on line 13, add: -- ; and a matched filter with input operably connected to the data slicer output, which matched filter provides for correction of errors in the data slicer output – after “demodulated signal”.
- 9) Cancel claim 22.

Allowable Subject Matter

- 2. Claims 7, 9, 14 and 16-19 are allowed.
- 3. The following is an examiner's statement of reasons for allowance:

None of the prior art teaches or suggests a frequency demodulating method comprising generating a first signal by fixing the modulated signal amplitude at a predetermined level; generating a second signal by delaying the first signal; use cross product of the first and second signal to generating an output signal; squaring up the output signal by applying the output signal to a data slicer; wherein the data slicer comprising a lowpass filter which generating a reference signal; applying the output signal and the reference signal to the inputs of a comparator; the comparator output consists of a squared up demodulated signal. A matched filter is applying to the output of the data slicer for reduce the likelihood of errors in the demodulated signal.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eva Yi Zheng whose telephone number is (571) 272-3049. The examiner can normally be reached on 7:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on (571) 272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-879-9306.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Art Unit: 2634

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Eva Yi Zheng
Examiner
Art Unit 2634

February 4, 2005

A handwritten signature in cursive script, appearing to read "Shuwang Liu".

SHUWANG LIU
PRIMARY EXAMINER